

What is claimed is:

1. An image processing method comprising the steps of:

(a) defining a local area in an input image;

5 the local area including a target pixel and neighboring pixels surrounding the target pixel;

(b) applying a filtering operation to the target pixel and the neighboring pixels in the local area while all the pixels in the local area are successively assigned to the target pixel, thereby

10 outputting a filtered image; and

(c) mixing the filtered image and the input image together at a specific mixing ratio, thereby forming an output image.

2. The method according to claim 1, wherein in the step (b) of  
15 applying the filtering operation, the pixel having a median value of density values of all the pixels in the local area is extracted, and the median value thus extracted is used for forming the filtered image.

20 3. The method according to claim 1, wherein in the step (b) of applying the filtering operation,

(b-1) an average value of density values of all the pixels in the local area is calculated;

(b-2) one of the pixels having a nearest density value to the

average value in the local area is extracted; and

(b-3) the density value thus extracted is used for forming the filtered image.

5 4. The method according to claim 1, further comprising a step of enlarging an original image at a specific enlarging ratio to form the input image.

10 5. The method according to claim 4, wherein the mixing ratio is determined according to the enlarging ratio.

6. An image processing method comprising the steps of:

(a) defining a local area in an input image;

15 the local area including a target pixel and neighboring pixels surrounding the target pixel;

(b) applying a filtering operation to the target pixel and the neighboring pixels in the local area while all the pixels in the local area are successively assigned to the target pixel, thereby outputting a filtered image;

20 the filtered image having a jaggy different in phase from a jaggy in the input image; and

(c) mixing the filtered image and the input image together at a specific mixing ratio, thereby forming an output image;

wherein the jaggy in the input image is suppressed by that

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in the filtered image in the step (c), resulting in the output image.

7. The method according to claim 6, wherein in the step (b) of applying the filtering operation, the pixel having a median value of density values of all the pixels in the local area is extracted, and the median value thus extracted is used for forming the filtered image.

8. The method according to claim 6, wherein in the step (b) of applying the filtering operation;

(b-1) an average value of density values of all the pixels in the local area is calculated;

(b-2) one of the pixels having a nearest density value to the average value in the local area is extracted; and

(b-3) the density value thus extracted is used for forming the filtered image.

9. The method according to claim 6, further comprising a step of enlarging an original image at a specific enlarging ratio to form the input image;

10. The method according to claim 9, wherein the mixing ratio is adjusted according to the enlarging ratio.

11. An image processing system comprising:

(a) means for defining a local area in an input image;

the local area including a target pixel and neighboring pixels surrounding the target pixel;

5 (b) a filter for applying a filtering operation to the target pixel and the neighboring pixels in the local area while all the pixels in the local area are successively assigned to the target pixel, thereby outputting a filtered image; and

(c) an image mixer for mixing the filtered image and the input  
10 image together at a specific mixing ratio, thereby forming an output image.

12. The system according to claim 11, wherein in the filter, the pixel having a median value of density values of all the pixels  
15 in the local area is extracted, and the median value thus extracted is used for forming the filtered image.

13. The system according to claim 11, wherein in the filter, an average value of density values of all the pixels in the local area  
20 is calculated, one of the pixels having a nearest density value to the median value in the local area is extracted, and the density value thus extracted is used for forming the filtered image.

14. The system according to claim 11, further comprising an

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interpolation processor for enlarging an original image at a specific enlarging ratio through interpolation to form the input image.

5 15. The system according to claim 14, wherein the mixing ratio is determined according to the enlarging ratio based on interpolation performed in the interpolation processor.

16. An image processing system comprising:

10 (a) means for defining a local area in an input image;  
the local area including a target pixel and neighboring pixels surrounding the target pixel;

(b) a filter for applying a filtering operation to the target pixel and the neighboring pixels in the local area while all the  
15 pixels in the local area are successively assigned to the target pixel, thereby outputting a filtered image;

the filtered image having different a jaggy different in phase from a jaggy in the input image; and

(c) an image mixer for mixing the filtered image and the input  
20 image together at a specific mixing ratio, thereby forming an output image;

wherein the jaggy in the input image are suppressed by that in the filtered image in the step (c), resulting in the output image.

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17. The system according to claim 16, wherein in the filter, the pixel having a median value of density values of all the pixels in the local area is extracted; and the median value thus extracted is used for forming the filtered image.

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18. The system according to claim 16, wherein in the filter, an average value of density values of all the pixels in the local area is calculated; one of the pixels having a nearest density value to the median value in the local area is extracted; and the density value thus extracted is used for forming the filtered image.

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19. The system according to claim 16, further comprising a processor for enlarging an original image at a specific enlarging ratio to form the input image.

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20. The system according to claim 19, wherein the mixing ratio is adjusted according to the enlarging ratio.

21. A display controlling apparatus comprising the image processing system according to claim 11.

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22. A display controlling apparatus comprising the image processing system according to claim 16.

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23. A computer program product having a computer readable medium and a computer program recorded thereon, the computer program being operable to generate an output image from an input image;

the product comprising:

5 (a) code that defines a local area in an input image;

the local area including a target pixel and neighboring pixels surrounding the target pixel;

(b) code that applies a filtering operation to the target pixel and the neighboring pixels in the local area while all the pixels  
10 in the local area are successively assigned to the target pixel, thereby outputting a filtered image; and

(c) code that mixes the filtered image and the input image together at a specific mixing ratio, thereby forming an output image.

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24. The product according to claim 23, wherein in the code (b) that applies the filtering operation, the pixel having a median value of density values of all the pixels in the local area is extracted, and the median value thus extracted is used for forming the filtered  
20 image.

25. The product according to claim 23, wherein in the code (b) that applies the filtering operation, an average value of density values of all the pixels in the local area is calculated; one of the pixels

having a nearest density value to the median value in the local area is extracted; and the density value thus extracted is used for forming the filtered image.

5 26. The product according to claim 23, further comprising code that enlarges an original image at a specific enlarging ratio to form the input image.

10 27. The product according to claim 26, wherein the mixing ratio is determined according to the enlarging ratio.

28. A computer program product having a computer readable medium and a computer program recorded thereon, the computer program being operable to generate an output image from an input image;

15 the product comprising:

(a) code that defines a local area in an input image;

the local area including a target pixel and neighboring pixels surrounding the target pixel;

20 (b) code that applies a filtering operation to the target pixel and the neighboring pixels in the local area while all the pixels in the local area are successively assigned to the target pixel, thereby outputting a filtered image;

the filtered image having a jaggy different in phase from a jaggy in the input image; and

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(c) code that mixes the filtered image and the input image together at a specific mixing ratio, thereby forming an output image;

wherein the jaggy in the input image are suppressed by that  
5 in the filtered image, resulting in the output image.

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